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THE AGRICULTURAL SITUATION IN EASTERN EUROPE

IV. Hungary

Foreign Agricultural Service

UNITED STATES DEPARTMENT OF AGRICULTURE

Contents

Page

Changes in land tenure.... 1
  Collectivization.... 3
  Collectives and other types of cooperative production units.... 4
  State farms and enterprises.... 6
  Private farms.... 8

Land utilization.... 8

Production.... 10
  Crops.... 11
  Livestock.... 13

Means of production.... 15
  Machinery and Machine Tractor Stations.... 15
  Fertilizer.... 17
  Rural electrification.... 18
  Irrigation.... 19

Prices and marketing.... 19

Taxation.... 23

Food situation.... 24

Foreign trade in agricultural products.... 24

Outlook.... 27

Bibliography.... 29

NOTE: THE FIRST THREE DOCUMENTS IN THIS SERIES ARE ON EAST GERMANY (FAS-M-31, FEBRUARY 1958), BULGARIA (FAS-M-39, JULY 1958), AND POLAND (FAS-M-54, APRIL 1959).

THE AGRICULTURAL SITUATION IN EASTERN EUROPE

IV. HUNGARY

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European Analysis Branch

Agriculture in Hungary has shown varying degrees of stagnation under the Communist management of the postwar years. While Western Europe's agriculture has taken significant steps forward during this period, the average annual gross index of agricultural production in Hungary--as estimated by FAS--in 1957-58/1958-59 was only 5 percent above the 1933-34/1937-38 average.

The nation's population has increased by 10 percent since before the war. Thus, it has been possible to maintain food consumption levels only by curtailing exports and importing substantial amounts of grain in some years. Before the war Hungary was an important net exporter of agricultural products.

Genesis of the problem is to be found in the economic policies pursued by the Communist regime. High priority has been given to industrial development while agriculture has not had sufficient incentives and investments for satisfactory growth. Since the uprising in 1956, incentives to farmers have increased considerably, but these improvements have been offset somewhat by forced collectivization. There is little doubt that the regime's goal to socialize agriculture has had extremely detrimental effects on output.

In spite of these difficulties, agriculture plays a very important role in the Hungarian economy, contributing reportedly about a third of the national income and employing over 40 percent of the economically active population.

The new state plan (1961-65) calls for a substantial increase in production as well as development of agriculture along more intensive lines (with emphasis on livestock products). The level of production in the years ahead will depend to a large extent on the degree to which the government will be prepared to give incentives to producers and direct resources toward the improvement of farm practices and productivity.

Changes in Land Tenure

Since the end of the war, most of the land in Hungary has undergone changes in ownership, in consequence of the land reform of 1945 and the subsequent process of socialization.

The land reform radically changed tenure throughout the countryside. Prior to the reform, 30 percent of the productive land was owned by 1,070 owners (0.1 percent of the total number of landowners), who had holdings averaging over 2,500 hectares.

On the other hand there were 1.2 million peasants (72.5 percent of the total number of landowners) whose holdings amounted to only 10 percent of the country's productive area and averaged less than 1 hectare per holding. In addition to these, there were 1.6 million landless peasants, who for the most part were employed on the large estates.

TABLE 1.--Effect of the 1945 land reform on the distribution of farm number and size

Farm size		1935		Post-1945 land reform	
Cadastral yokes	Hectares	Percent of total farms	Percent of total agricultural area	Percent of total farms	Percent of total agricultural area
0 - 5	0 - 2.9	72.5	10.1	68.1	17.9
5 - 10	2.9 - 5.8	12.5	9.2	18.8	21.1
10 - 20	5.8 - 11.5	8.8	12.6	8.5	17.3
20 - 50	11.5 - 28.8	4.5	13.5	3.4	14.7
50 - 100	28.8 - 57.6	.9	6.5	.7	8.1
100 - 200	57.6 - 115.1	.4	5.0	.3	4.4
200 -1,000	115.1 - 575.5	.3	13.2	.2	8.4
over 1,000	over 575.5	.1	29.9	1/	8.1

1/ Negligible.
Magyar Statisztikai Zsebkönyv, 1948, p. 103.

This situation had long provoked the peasant population; hence they were most receptive to the idea of land reform. During the course of the 1945 reform the state expropriated 3.2 million hectares 1/ (35 percent of the country's total area). Of this amount 2.0 million hectares were distributed among 675,000 peasants by the time the reform was completed in 1947.

All holdings of above 100 cadastral yokes (57.6 hectares) were confiscated, so those listed in Table I which exceed this amount in 1947 were under state control.

From the economic standpoint the land reform was not entirely sound because it broke up efficient large farms as well as those that were not so well run, and divided their area into small uneconomic units. The reform made the peasant population more tolerant (at least temporarily) of the incoming Communist regime and served the latter's purpose in that it greatly weakened the opposition of the wealthy class and the Catholic church who were among its major opponents.

The land reform, which preceded the emergence of a full-fledged Communist government in Hungary, was the first step of the socialization of agriculture, in that the state retained 1.2 million hectares of the expropriated land (90 percent of which was forest area) in order to set up state farms, land reserves, and other state enterprises.

1/ About 70 percent of this land was agricultural, the rest forest and unproductive.

Collectivization.--A Communist government assumed full power in Hungary in 1948. In a Communist country it is as a rule the objective of the regime to socialize the means of production. Deviations are contradictory to Communist ideology although, for agriculture, exceptions do occur in regard to timing and in other respects.

Industry is almost completely socialized in Hungary, and the regime has been endeavoring to put agriculture on the same basis. This would mean transferring farms from private hands to state farms and collective ownership. The success of the regime's efforts in this direction has been a measure of its power, since the great majority of the peasants are extremely reluctant to give up their private holdings for membership in collective farms or employment on state farms.

The first collective farms were formed in December 1948 and their numbers since then have fluctuated with the political climate. From the time of the uprising in the fall of 1956 to early in 1959 the private farmers were virtually left alone with regard to forced collectivization. The regime relied on propaganda and on the "voluntary principle" (seasoned with a certain amount of economic discrimination against private farmers) as the means of convincing peasants that socialist agricuture held the brightest future for the rural folk.

TABLE 2.--Collectives: Number, area, and number of families, selected dates 1949-60

Date	Number of farms	Total area	Arable area	Percent of total arable	Number of families
		1,000 ha.	1,000 ha.	Percent	Thousands
1/31/49	1,290	172.5	141.3	2.6	20.3
1/31/52	3,632	1,230.6	1,015.8	18.3	214.8
1/31/54	3,239	890.1	686.4	12.6	136.4
6/30/56	3,911	1,268.7	973.6	18.1	228.4
12/31/56	1,617	520.8	390.9	7.2	76.5
12/31/57	2,557	692.4	510.1	9.5	99.8
12/31/58	2,755	860.3	638.6	11.9	116.4
3/31/59	4,054	2,237.1	1,732.4	32.2	417.7
9/30/59	4,045	2,296.5	1,766.2	32.9	422.1
2/7/60	--	--	2,992.0	--	800.0

"Statisztikai Havi Közlemények", 1959 12. Szam, p.41.
Statisztikai Evkonyv, 1949-55 p.197.
Népszabadság, February 13, 1960.

It was not until the end of 1958 that the Kadar Regime felt sufficiently recovered from the events of 1956 to initiate an intensive collectivization campaign. The slogan of the drive was a "moderate leap forward"; however, the results indicate more than moderate success. The arable area of collective farms more than doubled and their membership more than tripled in the course of 3 months. These impressive results were facilitated by two factors: many of the peasants who joined the new collectives were former members of collectives before the 1956 uprising (which resulted in the dissolution of 56 percent of the then-existing collectives) and secondly, the campaign was concentrated in areas where the party strength was sufficient to exert effective pressures on the private peasants to form collectives. As a result of the latter consideration, some counties are over 60 percent collectivized 2/ whereas others are less than 15 percent collectivized.

On about a third of the new collectives the objective of carrying out work collectively was not realized until after the 1959 crop was harvested. The members went on working on a private basis until the fall when the adjustment to new management in these units could be accomplished with greater ease.

In October 1959, the regime announced through a resolution that conditions were again favorable for further collectivization. The strengthening of existing collectives was cited as the primary task, but a drive for new ones was also undertaken. This most recent campaign ran from November to February of this year and was apparently very sucessful from the government's point of view. Reportedly 380,000 new members were enlisted, bringing with them 700,000 hectares of arable land. These figures suggest that the drive was concentrated on smaller landowners than those who were recruited previously; the average contribution of arable land was less than 2 hectares.

Most of the new collectives probably exist only on paper at this point. If last year's example is followed many new members will be permitted to farm independently until the fall. Officials have indicated that collectivization will be pushed whenever and wherever conditions are conducive to it. The ultimate goal is to completely socialize agriculture. The remaining private peasants fully realize this. Many have adopted the attitude that improvements on their property are superfluous since they do not know who will be operating their farm next year. Some officials have hinted that the goal of complete socialization may be set for 1965.

Collectives and Other Types of Cooperative Production Units.--Collective farms (Mezögazdasági termelöszövetkezetek) are now the predominating form of socialized farming in Hungary. The units are similar to the Soviet kolkhoz. Members are obliged to contribute to the collective all land they own or lease, save a household plot of 0.29 to 0.58 hectare. Furthermore, they must donate all their machinery, farm buildings, and sowing seeds for the land contributed.

Draft and farm animals, plus fodder supplies for these, must also be given over to collective ownership. Families of members may retain for their private use 1 cow, 1 - 2 young cattle, 1 - 2 sows, several sheep and goats, and all poultry they choose.

2/ This does not include state-owned arable land in these counties.

For the animals and equipment contributed to the collective, members are supposed to be reimbursed at the rate of 20-35 percent of their value. These payments are to be made over a period of 1 to 4 years.

Recently it has become compulsory to pay rent to members for land contributed to collectives. Formerly, the decision to pay land rent was arbitrary. On collectives where the majority of the members contributed no land, the payment of land rent was usually avoided. The government's decision to make payment of land rent obligatory was in the interest of making the collective idea more palatable to the private farmers. To what extent and for how long this rule will be complied with is open to question.

Wages of the collective members are based on the amount of labor-time they contribute. Work hours are converted into work units with consideration of the type of task performed. The payment per work unit is determined by the amount of earnings that are distributed among the members. It is possible that, even when the collective has a successful year, payment per work unit will be small if a large proportion of the farm's earnings is reinvested.

Three-year contracts must be signed by incoming collective members. After this period has expired, members may submit resignations, which are dealt with by the General Meeting. Such requests are rarely granted but, when they are, the resigning member is awarded property equal in size (but almost always of inferior quality) to the land he initially contributed.

Management of the collective is theoretically administered by the General Meeting, which consists of the total membership and convenes at least once a month. In the interim the executive committee, which is elected by the General Meeting, is in charge of running the affairs of the collective. The chairman of the executive committee, who is also chairman of the collective, is actually responsible for managing the farm. In most cases the chairman is a member of the Communist Party.

These procedures are the general framework in which the collective in Hungary operates; in this respect, collectives are alike but they vary considerably in efficiency. Depending on the location of the collective, the availability of Machine Tractor Station service (or in some cases the actual ownership of machinery by the collective), the leadership on the farm etc., their operation ranges from very poor to quite impressive. On the better collectives the members usually enjoy good incomes and their life is satisfactory at least from the material point of view. On the other hand, the majority of collectives are inefficiently run and attain results inferior to what private peasants could do on the same land.

The average collective 3/ has a membership of 104 families and a size of 568 hectares, of which 437 hectares is arable. The average size of collectives has constantly been on the increase, and this trend is expected to continue through amalgamation of existing collectives.

3/ As of Sept. 30, 1959.

Aside from collectives, a limited amount of cooperative work is carried out in cooperative groups (Termelöszövetkezetek Csoportok), agricultural associations (Mezögazdasági Tarsulasok), specialized groups (Termelöi Szakcsoportok) and specialized cooperatives (Szakszövetkeztek).

In the cooperative groups, members pool their land for limited tasks such as plowing and sowing. Other operations may be done privately, and the crops harvested are at the free disposition of the members. Land, animals, and equipment are retained in the ownership of members. Members are paid customary rent for common use of their draft animals and machinery, and must contribute to the costs of the cooperative group in proportion to the land they pool. Although cooperative groups are considered by the regime as inferior forms of collective endeavor, they are supported because they are regarded as stepping stones to the collective.

In the collectivization drive during the early months of 1959, the number of cooperative groups was almost halved, the implication being that the decrease resulted from conversion of cooperative groups into collectives. At the end of June 1959, there were 450 cooperative groups with 22,300 members operating on 72,000 hectares.

Even below cooperative groups in level of cooperation are the agricultural associations, (primarily for collective use of machinery) and specialized groups and cooperatives for collective cattle breeding and cultivation of certain crops. In these organizations members retain ownership to all their property and means of production; only single functions are performed collectively. Their existence is tolerated by the government because it is hoped that they will acclimate private farmers to collective work as well as help increase production.

State Farms and Enterprises.--The first state farms and enterprises were established immediately following the 1945 (pre-Communist) land reform. The government retained 1.2 million hectares of the expropriated land for this purpose; most of it consisted of forest.

The government's explicit purpose in creating state farms (Állami Gazdasagok) was to provide models for other farm units; to carry on experiments; and to help provide for the urban population food supplies that could readily be brought under centralized control.

Between 1950 and 1953, the total area of state farms was rapidly increased through expropriation of the property of middle-peasants who were unable to meet the high taxes, obligatory delivery quotas, and other demands of the government.

Following the "New Economic Policy" of mid-1953, the purge of the kulaks 4/ was greatly eased, but by that time few remained. Since then the area of state farms has fluctuated only slightly, with the exception of the

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4/ Kulaks are the wealthier peasants, branded as class enemies, allegedly because they own land in excess of what they can work themselves and therefore employ hired labor.

increase following the 1956 uprising; this increase resulted from the state's expropriation of the lands of some of the collectives that dissolved during that period.

TABLE 3.--State Farms: Number and area, selected years 1950-58

Year (Year end)	Number	Total area	Arable area	Percent of total arable area
		1,000 hectares	1,000 hectares	Percent
1950	375	475.9	335.1	6.1
1952	501	920.9	670.0	12.1
1954	494	974.2	689.4	12.6
1956	466	967.9	670.8	12.4
1957	435	992.2	681.3	12.6
1958	417	1,000.3	684.7	12.7

Mezőgazdasági Statisztikai Zsebkönyv, 1959, p. 225

State farms were formerly under the direction of the Ministry of State Farms, which was an excessively bureaucratic agency with a strong hand in the management of each unit. In early 1957 the Ministry was abolished and its responsibilities were transferred to the Ministry of Agriculture. This change increased the autonomy of state farms. It was hoped that with the clearer line of responsibility which ensued, efficiency of the farms would increase. However, management remains a sore problem. Potential managers of the farms are not necessarily selected on the basis of their agricultural qualifications but rather by their political reliability.

The labor force on state farms has also posed a serious problem; peasants regard employment on such farms as undesirable. State farm workers receive a rather low remuneration (which takes the form of both money and kind), and are generally those rural folk who do not have alternative employment opportunities.

The average size of state farms has been on the increase and is now about 240 hectares (164 hectares of arable land). Although state farms are the best-equipped units (in terms of machinery, fertilizer, buildings, etc.) in Hungarian agriculture, their performance has been poor. Balance sheets were drawn up by 278 state farms in 1958; of these, 80 operated at a loss. Although the reliability of this official statement as an indication of the efficiency of state farms is subject to scrutiny (because of the government's pricing policy etc.), it does point out that many state farms are not meeting the aspirations of the regime.

There are, however, some well run state farms in Hungary, which are often used as showcases for foreign visitors. These model farms meet Western standards.

Besides state farms the total state sector is made up of state enterprises (Állami Vallalatok) which include forests, experiment stations proper, and various single-purpose enterprises for pig fattening, seed growing, egg hatching, sugar-beet cultivation, soil amelioration, etc. Almost all the country's forest area, which has been steadily increasing under an afforestation program, is in state forests.

The future of the state sector in Hungarian agriculture is not clear. If collectivization plans are met, the only way the state sector could expand would be through acquisition of collective farm property. There has been a tendency toward larger units. Some state farms have been amalgamated into larger units in cases where their land is contiguous. Nine were recently combined into one 28,000-hectare unit.

Private Farms.--The coexistence of very large estates with a well-to-do group of middle-sized farms of from 10 to 25 hectares and numerous poor peasants, landless or with plots generally less than 2 hectares, characterized private farming in Hungary between the two wars. Some of the large estates and many middle-sized farms were efficiently run and produced the bulk of the commercial supply. Peasants with tiny plots were for the most part barely self-sufficient.

The land reform of 1945 eliminated the large estates and the subsequent socialization process greatly reduced the number of middle-sized farms. Consequently, the average size of private farms by June 1958 was only about 3 hectares; the bulk of the land in the private sector was in holdings of from 2 to 8 hectares.

The Government maintains a discriminatory policy against private farmers. This policy is exemplified by the higher taxes and prices paid by private farmers for materials and services in comparison with those paid by collective farms. However, the private sector still is an important component of the country's agriculture. During 1958 most of the green vegetables, sugar beets, sunflowerseed, fodder crops, and livestock products were produced by private farmers, who at that time owned about 75 percent of the country's arable land. Although the private sector has diminished with recent decreases in arable area, it no doubt accounted for more than half of the value of agricultural production in 1959.

However, the current forced collectivization drive has already taken another large slice out of the private sector; as of February 7, 1960, officials disclosed that private farms covered 30 percent of the country's arable area. The government's plan to completely socialize agriculture foretells a dim future for the remaining private farmers.

Land Utilization

Situated in a basin formed by the Carpathian, Alps, and Balkan Mountain ranges, Hungary has a relatively large proportion of land (almost 80 percent) that is suitable for agricultural production.

TABLE 4.--Land area: Distrbution by use, selected years 1935-58

Year (Midyear)	Arable	Gardens	Vine-yards	Meadows	Pas-tures	Forests	Other	Total
	1,000 ha.	1,000 ha.	1,000 ha.	1,000 ha.	1,000 ha.	1,000 ha.	1,000 ha.	1,000 ha.
1935	5,601	114	207	661	983	1,099	634	9,300
1949	5,507	145	234	614	906	1,166	727	9,299
1957	5,388	176	196	509	932	1,272	830	9,303
1958	5,378	178	199	506	935	1,272	835	9,303
	Percent of total	Percent of total	Percent of total	Percent of total	Percent of total	Percent of total	Percent of total	Percent of total
1935	60.3	1.2	2.2	7.1	10.6	11.8	6.8	100.0
1949	59.2	1.6	2.5	6.6	9.8	12.5	7.8	100.0
1957	57.9	1.9	2.1	5.5	10.0	13.7	8.9	100.0
1958	57.8	1.9	2.1	5.4	10.1	13.7	9.0	100.0

Mezögazdasági Statisztikai Zsebkönyv, 1959, p. 17.

The country is divided into three distinct agricultural areas: Transdanubia,located west of the Danube and characterized by widely diversified agriculture, varied topography, and higher precipitation than the rest of the country; the Great Plain, situated east of the Danube, with a rather level topography favoring the cultivation of grains, but little rainfall and subject to periodic droughts sometimes accompanied by wind erosion of valuable topsoil; and the North Hill country, located north of the Great Plain, a hilly region with a high proportion of forests and a more severe winter climate.

The soil types of these three regions range from the highly productive dark steppe loam which covers much of the Great Plain (as well as a small portion of eastern Transdanubia) to the leached forest soils commonly found in the North Hill Country. By virtue of different topographic, soil, and climatic conditions, it can be stated that, in general, natural conditions in Hungary are favorable for a diversified agriculture.

When considering developments in land use in Hungary one must bear in mind that ownership of much of the country's area has undergone several changes since the end of the war, and the various owners have not held the same objectives with regard to the use of the land. For example, as a result of the 1945 land reform, many large cereal-growing estates were divided among peasants who were primarily interested in raising a larger variety of crops on a subsistence basis; this resulted in a sharp decline in bread grain area accompanied by increased area in vegetables. In the early years of socialization, bread grain area rose somewhat but remained far below prewar levels. However, since 1956 (following the dissolution of collectives consequent upon the uprising) it has again decreased sharply and in 1959 it was 35 percent below the prewar level; during this period feed grain area increased by 12 percent. A further substantial decrease in bread grain area would render it impossible even in the best years for production to satisfy domestic needs.

Also worthy of note is the increase, then subsequent decrease, in industrial crop area, largely due to the importance of sunflower production during the war economy, and its postwar decline in priority.

TABLE 5.--Principal Crops: Percentage of total arable area, by crop, average 1934-38, annual 1958 and 1959

Crop	1934-38	1958	1959 1/
	Percent	Percent	Percent
Bread grains	40.3	29.1	27.4
Feed grains	33.2	37.5	38.8
Potatoes	5.2	4.5	4.3
Fresh vegetables	.9	1.8	1.9
Sunflowers	(2/)	1.6	1.8
Sugar beets	.8	2.0	2.3
Fodder and forage crops	14.6	15.9	16.2
Other	5.0	7.6	7.3

1/ Preliminary.
2/ Negligible.
Annuaire Statistique Hongrois, 1933-38 editions.
"Statistikai Havi Közlemények", 1959 Szam.8, p. 98.

The pattern of change has been in the direction of a more intensified production, an explicit goal of the regime. Further intensification can be expected in future years, owing to use of more fertilizer, machinery, and irrigation as well as better methods of transportation which are in the offing.

Interesting sidelines have been the cultivation of cotton and rice in Hungary; under the influence of the regime and against the advice of agricultural experts, cotton was first planted in 1948 and by 1953 its area rose to over 50,000 hectares. The results attained from this venture were extremely poor and since that time cotton has been relegated to an experimental status.

Rice cultivation reached its peak in 1955 when 50,000 hectares were planted. In that year, yields which normally compare poorly with those of other countries were so bad that the rice area has since decreased by 35 percent.

Production

Agricultural production in postwar Hungary has only recently exceeded prewar levels. The lag has been due to the policies of the government, which until lately provided not only little support but rather considerable disincentive to agriculture. Since the 1956 uprising, however, policies have been more conducive to expanding farm output. Gross agricultural output in 1957-58/1958-59 -- as estimated by FAS -- was 5 percent above the 1933-34/1937-38 average. In all other postwar years (excepting 1951 and 1955, when weather was exceptionally good) it was far below the prewar average.

Per capita production has also been below prewar levels, even in the best years of 1957-59. Population has increased by about 10 percent since the war, and in order to maintain food consumption levels, agricultural exports have been curtailed and in some years large imports of grain have been made.

In regard to the total value of agricultural production, it is estimated that somewhat more than half is derived from livestock products and the remainder from crop production.

Crops.--Grain is the most important crop produced in Hungary, covering about two-thirds of the country's arable area. In the past few years, emphasis on livestock production has brought corn to the forefront, replacing wheat as the major grain. This is a significant development and supports other indications in Eastern Europe of the increasing demand for livestock products.

Hungary's total grain area has steadily decreased during the postwar years. This decrease has been due to a 35 percent drop in the bread grain area; feed grain area has increased by 12 percent. It seems unlikely that bread grain area will continue decreasing in view of Hungary's recent need to import wheat. Even with the area reported in 1959 Hungary would need considerably better-than-average yields to meet domestic consumption requirements.

Fodder crops follow grains in importance, taking up about 15 percent of the arable area. Red clover and alfalfa have become the most predominant fodders; of less importance are silo corn and a mixture of green oats and vetch.

Production of industrial crops has decreased sharply from a peak in the early 1950's, but remains at more than double the prewar level. During and immediately following the war, sunflower plants were grown extensively, accounting for most of the increased industrial crop area. However, during the last few years the need to substitute sunflowerseed oil for animal fat has rapidly declined.

Other industrial crops grown are sugar beets, hemp, fiber flax, tobacco, poppyseed, oil flax, colza, and caster oil plant.

Another noteworthy development in crop production has been the doubled area of fresh vegetables compared to before the war. Almost all this area is in private farms or in the private household plots of collective farms.

According to official statistics, crop yields in postwar Hungary have been, in general, not significantly different from those of the prewar years. Grain yields, with the exception of corn and barley, show no improvement. Higher corn yields reflect increased use of hybrid seed; in 1958, 40 percent of the corn area was reportedly planted with hybrid seed. A significant increase in barley yields is explained by the shift to winter barley which usually yields substantially more than spring barley.

TABLE 6.--Principal crops: Area, production, and yield selected averages 1933-58

Commodity	Unit	1933-37	1950-54	1955-58
Wheat:				
Area.	1,000 ha.	1,609	1,374	1,296
Production.	1,000 m.t.	2,206	1,996	1,856
Yield.	Quintals/ha.	13.7	14.5	14.3
Rye:				
Area.	1,000 ha.	651	517	421
Production.	1,000 m.t.	727	629	474
Yield.	Quintals/ha.	11.2	12.2	11.2
Barley:				
Area.	1,000 ha.	473	437	458
Production.	1,000 m.t.	631	648	784
Yield.	Quintals/ha.	13.4	14.8	17.1
Oats:				
Area.	1,000 ha.	224	143	146
Production.	1,000 m.t.	279	161	202
Yield.	Quintals/ha.	12.5	11.2	13.8
Corn:				
Area.	1,000 ha.	1,163	1,146	1,270
Production.	1,000 m.t.	2,136	2,192	2,726
Yield	Quintals/ha.	18.4	19.1	21.5
Potatoes:				
Area.	1,000 ha.	294	228	231
Production.	1,000 m.t.	2,076	1,693	2,410
Yield	Quintals/ha.	70.7	74.1	104.3
Sugar beets:				
Area.	1,000 ha.	47	114	104
Production.	1,000 m.t.	995	2,021	2,022
Yield	Quintals/ha.	205	177	194
Sunflower:				
Area.	1,000 ha.	5	231	118
Production.	1,000 m.t	5	233	132
Yield	Quintals/ha.	10.0	10.0	11.2

"Statisztikai Havi Közlemények", 1959 Szam.9, p. 39.

A comparison between reported yields on private and socialized farms suggests interesting implications. In the early years of socialization, private peasants attained the best yields in most crops; during these years there was a sizable number of middle-class peasants (subsequently forced into socialized farming), which boosted the private-sector average, and, of course, collective and state farms were just getting started. In most recent years, however, yields in the socialized sector have surpassed private farmers'. Much of this can be attributed to the favorable treatment extended to the socialized sector by the regime, including priority in receiving supplies of fertilizer, seeds, use of machinery, and so forth (and at lower prices than those paid by private peasants). It is interesting to note, however, that private peasants fare relatively well with crops that require intensive care and hard labor, such as corn and sugar beets.

TABLE 7.--Principal crops: Yield, by social sector, average 1950-54, annual 1955-58

Commodity	1950-54	1955	1956	1957	1958
	Quintals per ha.	Quintals per ha.	Quintals per ha.	Quintals per ha.	Quintals per ha.
Wheat:					
State farms	15.0	20.2	17.9	21.4	17.4
Collectives	13.9	17.4	14.4	18.2	14.6
Private and other farms 1/	14.6	14.6	12.2	14.6	11.5
Rye:					
State farms	13.7	16.0	15.3	15.5	14.4
Collectives	12.2	14.6	13.4	14.2	12.0
Private and other farms 1/	12.1	11.6	10.4	11.1	9.4
Barley:					
State farms	15.6	22.4	17.7	22.9	18.8
Collectives	14.7	20.5	15.5	21.5	15.3
Private and other farms 1/	14.9	18.8	15.6	19.1	12.5
Oats:					
State farms	10.2	13.7	14.8	15.1	13.2
Collectives	11.5	15.1	15.6	16.9	11.6
Private and other farms 1/	11.4	14.8	14.8	15.1	10.6
Corn:					
State farms	14.6	22.6	16.2	23.3	24.5
Collectives	14.4	23.5	17.9	22.9	21.5
Private and other farms 1/	19.7	22.4	17.5	24.2	21.5
Potatoes:					
State farms	69.5	127.0	84.8	114.9	114.5
Collectives	74.4	119.7	106.2	124.6	110.5
Private and other farms 1/	74.3	105.1	92.6	111.9	107.9
Sugar beets:					
State farms	143.9	217.2	137.3	207.8	217.7
Collectives	175.0	236.3	187.7	248.5	203.8
Private and other farms 1/	180.7	187.7	166.8	221.2	181.8

1/ Includes cooperative groups, household plots of collective members, and land owned by the community.

Mezőgazdasági Statisztikai Zsebkönyv 1959, pp. 87-97.

Livestock.--During the past few years, livestock production has been on the increase; the gross index of livestock production--as estimated by FAS--in 1957-58/1958-59 was 12 percent above the prewar average. This contrasts with a much lower livestock output during the first half of the 1950's.

The recent rise has been stimulated by three main factors: The abolition of compulsory deliveries, the temporary relaxation of socialization pressures as well as other Stalinist measures, and the excellent crops in 1955 and 1957.

Livestock production is still largely in private hands. In April 1959, privately owned livestock 5/ included about 85 percent of the hogs, 80 percent of the cattle, 80 percent of the horses, almost all the poultry, and about a third of the sheep. This is irksome to the regime because it permits only slight control of livestock production and the distribution of livestock products. The government maintains that the only way to fully exploit livestock production is through socialized ownership, and agricultural policy is geared to this theory.

Of the total value of livestock products, it is estimated that about 40 percent is derived from hog products, 20 percent from dairy products, 20 percent from poultry, and 13 percent from beef and veal production.

Hog products supply over half the meat and almost all the fat in the Hungarian diet. Exports of slaughter hogs are large but still remain below prewar totals. Hog numbers in 1959 were reported at an alltime high, indicating full recovery from excessive slaughtering during the last months of 1956.

TABLE 8.--Livestock: Total numbers, selected years, 1938-59 1/

	1938	1945	1948	1950	1956	1957	1958	1959
	Thousands	Thousands	Thousands	Thousands	Thousands	Thousands	Thousands	Thousands
Cattle......	1,882	1,070	1,993	2,222	2,170	1,973	1,937	2,004
Cows only	917	586	1,122	1,137	994	972	967	962
Hogs........	5,224	1,114	2,771	5,542	6,056	4,996	5,338	6,225
Sows only	612	214	366	638	479	403	446	522
Horses......	814	329	651	712	729	720	724	717
Sheep.......	1,629	328	579	1,049	1,930	1,873	2,050	2,155
Poultry.....	17,617	--	34,880	18,181	22,779	23,880	--	--

1/ March census.
Mezögazdasági Statisztikai Zsebkönyv, 1959, pp. 191-194.

The increase in hog numbers has been accompanied by an expansion of corn area, thus augmenting fodder supplies which are, however, still inadequate.

Beef and veal production has apparently increased substantially since prewar times but still plays a minor role in the country's food supplies. Exports of slaughter cattle have been at high levels in the past few years. In 1958 they even surpassed the prewar average. The number of cattle remains about 10 percent below the level prior to the 1956 uprising. Increased beef and veal production is apparently the result of higher slaughter weights as well as larger numbers slaughtered.

Milk production was reportedly at an alltime high in 1958--about 15 percent above the 1938 level. However, 1957 was the first postwar year in which

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5/ These figures include animals privately owned by members of the collectives.

prewar levels were exceeded. This sudden increase in milk production is attributed entirely to higher yields per cow; cow numbers in 1957 were below the 1938 total while yield per cow was officially stated at 23 percent above. About a third of the milk produced is utilized in the production of butter and cheese, a good share of which is exported.

Egg production in 1957, according to official sources, was almost double the 1938 total. Between these years, a 50-percent increase in chicken numbers and a 20-percent increase in production per bird is reported. The production of poultry meat has also increased substantially since prewar times. Despite these increases, the exports of poultry meat and eggs are still far below prewar levels, indicating a significant increase in domestic consumption.

Sheep raising, in contrast to the situation of other animal classes in Hungary, has declined somewhat since before the war. Although sheep numbers in 1957 were slightly above the levels in the 1930's, lamb, mutton, and wool production was considerably below the prewar average.

Means of Production

Some progress has been made, especially in very recent years, toward the modernization of Hungarian agriculture.

The programs of the 1950's, however, have been orientated toward industrialization and have not been especially liberal toward agricultural development. Technology that has been added has been practically confined to the socialist sector, but inefficient use of machinery and so forth on socialist farms offsets part of the technological advantages they have over private farms.

Further technological improvements in the country's agriculture hinge on government decision. According to state plans, more attention is to be given to this problem.

Machinery and Machine Tractor Stations.--The mechanization of agriculture has progressed considerably in postwar Hungary. For example, tractor numbers in 1958 were more than double those in 1947. However, there is still only one tractor for every 200 hectares of the country's plowland.

Before the war the use of tractors and other machinery in Hungary was discouraged by the extremely low cost of labor; many tractors stood idle because it was cheaper to employ hand labor. In addition, a large proportion of the country's arable area was distributed in tiny plots which were often scattered; the use of tractor machinery on these plots was impractical.

During the postwar years the government has channeled almost all equipment into the socialized sector. Large state farms and collectives are better able to utilize machinery since private plots are small, much like the tiny holdings of the prewar days. Most of the equipment in the socialized sector belongs to the state-controlled Machine Tractor Stations (MTS) whose main function is to meet the machinery needs of collectives.

TABLE 9.--Tractors: Number, distribution, and area per tractor, selected years, 1935-58

Item	1935	1949	1953	1956	1958
	Number	Number	Number	Number	Number
Total tractors.	7,014	13,021	14,149	25,483	26,645
Number on state farms	--	1/2,045	4,426	7,584	8,736
Number on MTS.	--	1/6,730	9,215	16,152	15,304
	ha.	ha.	ha.	ha.	ha.
Total arable land per tractor	799	423	388	212	202
Arable land per tractor on State farms	--	1/164	155	89	78

1/ 1950
Mezőgazdasági Statisztikai Zsebkönyv, 1959, pp. 302-303.

The significance of horses as a source of power has not diminished in postwar Hungary. Private peasants depend almost exclusively on the horse since private ownership of tractors is for all purposes nonexistent and the assistance private peasants receive from the MTS is very little. Besides, they own most of the horses.

The MTS work on a contract basis, mainly for collectives but private farms are also assisted. (State farms own most of the machinery they use.) They were established in early 1948, initially equipped with machinery confiscated from large estates and kulak farms during the 1945 land reform. Additional equipment on the MTS has since been appropriated by the state.

The number of stations reached a peak of 368 in 1952. They declined to 250 at the start of 1959, mainly because of consolidation.

Of the total services performed by machine tractor stations in 1958, 6/ almost half were contracted by collectives, about 30 percent by private farmers,and 20 percent by the state sector. When comparing the proportion of work performed for collectives to that done for private farmers one must keep in mind that private farms in 1958 covered five times as much plowland as collectives; hence the work done on collectives on a per hectare basis was about eight times that done for private farmers.

The machine tractor stations generally fulfill the requests of the socialized sector before the private sector is attended to. This unreliability as to timing,plus high rates and reputed poor quality of work, discourages many private peasants from contracting work with the stations. The low level of mechanization on private farms is partially offset by the use of horsepower.

6/ Services are expressed in the terms of area covered in performing the various operations such as plowing and seeding.

Rates charged by the MTS differ according to the type of farms serviced. Newly formed collective farms are charged the lowest rates and private farmers the highest. Older collectives farms are charged less than cooperative groups. Also, the larger the volume of work contracted, the less the fee charged. Payment of fees is both in cash and kind (usually grains). Collectives are allowed to pay for services over a period of time, but private farmers must pay as the work is completed.

In 1957 the state extended limited autonomy to individual machine tractor stations in the hope that some of the bureaucratic inefficiencies of stringent central control would be eliminated. This act has reportedly lightened some of the problems of station management but many difficulties are still apparent. Criticism is often made of station employees for not being interested in increasing production; since tractor drivers are paid on the basis of how much area they plow or plant, and so forth, and not according to the quality of their work, shortcuts that increase speed but diminish production are often taken.

There is a rapid turnover of tractor drivers because the machine tractor station is frequently used as a training place for better-paying jobs in industry. Inexperienced drivers cause a lot of damage to machinery through misuse. The quality of machinery supplied to stations is also often a subject of complaint. Also, officials have complained that stations are equipped in a uniform manner with no regard for the specific needs of the area's agriculture.

In spite of the difficulties encountered with the MTS system the government is apparently not ready to scrap it as some other Communist countries have done. This is easy to understand since the private sector still covers a significant area and the equipment supply remains deficient. Also, machine tractor stations are a useful tool in promoting expansion and consolidation of the socialized sector, as well as supplying the state with an additional amount of the country's food supply through payments in kind. The government thus feels that, under these circumstances, the country's scarce supply of equipment is utilized to its best advantage through the machine tractor stations.

As a sort of compromise the government supports the rental of machinery on a yearly basis to the better collectives and in some cases even allows collectives to purchase machinery.

State farms are clearly the most mechanized units in Hungarian agriculture and depend on the MTS only in emergencies. Tractors on state farms numbered one for every 78 hectares of arable land in 1958. In the same year, they owned one combine for every 223 hectares of small-grain area.

Fertilizer.--In 1958, the consumption of fertilizer in Hungary was about eight times the 1938 level, which, however, was extremely low. About two-thirds of the fertilizer consumed in 1958 was used in the socialized sector, which at that time included only about 30 percent of the country's plowland.

Fertilizer consumption on private farms amounted to only about 6 kilograms of pure nutrients per hectare of plowland whereas the consumption per hectare on state farms and collectives was 72 and 42 kilograms, respectively. The low fertilizer consumption on private farms is offset to a large extent by the use of manure since private peasants own the bulk of the livestock.

Domestic output of fertilizer is far above the prewar level, but Hungary still depends heavily on imports. For example, in 1958 all the potassium and about an eighth of the nitrogen consumed was imported. Furthermore, large quantities of raw phosphate must be imported annually for the production of superphosphate. Government officials have indicated that self-sufficiency in nitrogenous fertilizer is attainable, but potassium and phosphates apparently cannot be produced to a great extent in Hungary.

TABLE 10.--Commercial fertilizers: Consumption by type, selected years, 1935-58

Year	Phosphoric	Nitrogenous	Potassic	Total	Pure nutrients
	1/ Kilograms	1/ Kilograms	1/ Kilograms	1/ Kilograms	1/ Kilograms
1935.	6.6	1.0	0.2	7.8	1.4
1949.	12.5	7.8	1.2	21.5	4.0
1953.	26.1	12.0	4.0	42.1	8.7
1956.	22.8	20.2	5.0	48.0	10.1
1957.	25.2	34.8	6.3	66.3	14.2
1958.	34.8	40.1	10.8	85.7	19.8

1/ Per hectare of arable land.
"Statisztikai Havi Közlemények" 1959 Szam.9, p.40.

Rural Electrification.--Electrification has spread rapidly in the Hungarian countryside during the postwar years. In the beginning of 1959, 2,660 villages, or 82 percent of the country's total, had electricity compared to only 1,300 in 1944. However, electricity is still not an important source of power on the farm; its use in rural areas in largely confined to the household and the average annual consumption per rural inhabitant is a meager 10 kilowatt-hours.

All machine tractor stations and almost all state farms are electrified; these socialized units apparently consume a goodly share of the electricity used as a source of farm power.

Hungary's resources for the generation of electricity are not abundant; much of the electricity now used is being imported. Such imports, which come mostly from Czechoslovakia, are a decisive part of the plan to increase per capita consumption throughout the countryside. Electricity was planned to be brought to an additional 85 villages in 1959.

Irrigation.--In 1958, the area under irrigation in Hungary was 72,000 hectares, or five times the 1939 total and about 70 percent of the irrigated land belonged to state farms and collectives. This increase is linked to the postwar introduction of rice cultivation in Hungary. All the rice area is irrigated and accounts for about half the area under irrigation. A peak of 90,000 hectares of irrigated area was reached in 1955, the year in which the rice area was at an alltime high. The subsequent decline in irrigated area has been accompanied by a 35-percent drop in the rice area (since 1955).

Pastures and meadows follow rice in importance as irrigated crops; garden crops are of less importance.

Nearly all the irrigation is the open-ditch type; mechanical sprinkler systems are rare. Most of the irrigated area is located in the east-central plains area through which the Tisza River flows.

In line with the state's explicit intention to intensify agriculture, the area under irrigation is planned to increase appreciably by 1965. It is hoped that through this technique at least a small part of the planned increases in crop and animal yields can be realized.

Prices and Marketing

The rigid state control over agricultural marketing has slackened somewhat since late 1956 when compulsory deliveries were discontinued. However, the bulk of farm products marketed still flows through government channels at fixed prices, although these are not much below free market prices. In 1957-58 state procurement was reported to be valued at 36 percent of total agricultural production (or perhaps from 60 to 70 percent of total marketings); the plan for 1958-59 was set at 37 percent. The free market is mainly centered on vegetables, fruit, and animal products.

A plan for the procurement of agricultural products is drawn up by the government for each economic year. The official objective of fulfilling the plan is to ensure the food supply of the urban population, maintain national food stocks, and secure a supply of commodities for export. The plan includes collection targets for the country as a whole as well as for each county, district and village in the nation's administrative organization. Much of the responsibility of overseeing the plan's completion is that of government agents located in state and cooperative purchasing enterprises throughout the country.

Compulsory deliveries, which were in the past heavily relied upon in executing the procurement plan, came to an end while a variety of other collection methods survived, including state farm deliveries, contracts, and other state purchases (at fixed prices), land tax payment-in-kind, payment-in-kind of fees charged by state-run enterprises (machine tractor stations, flour mills), and, finally, repayment of loans in kind.

The compulsory delivery system was a means used to exploit the peasants for the sake of expanding the country's industrial sector. Peasants were hostile toward this system, with its obligation to surrender high quotas (based on the potential productivity of the soil) at prices that in some cases, were even below production costs. Peasants who could not fill their quotas were supposed to purchase the difference on the free markets at prices at that time far above those received in resale to the state. This harsh policy led to demoralization of the work on farms and consequent deterioration of farm practices with ill effects on production.

Contracts with producers seem to be taking the place of compulsory deliveries. Formerly contracts were negotiated mainly for the purchase of industrial crops. The state is now strongly promoting the contract system for grains, vegetables, fruits, and animal products as well.

Officially, contracts are said to be voluntary, but the degree to which this is true probably depends on how many willing participants there are. Pressure to sign contracts is probably strongest in areas where independent peasants predominate since government-dominated collective farm leaders presumably cooperate more fully with the regime's agricultural policy. Contracts are made directly between state organizations and producers (at seeding time for crops) at pre-established prices, which are generally not far below average free market prices. Partial advance payment is admissible to help cover operating costs.

Other state purchases at fixed prices (apparently the same as contract prices) also are made by state organizations and state-dominated marketing cooperatives. Taken together, contract and extracontract purchase of grains in 1958 amounted to about one-fourth of total grain procurement; potatoes and industrial crops--sunflowerseed, sugar beets, and wine--were procured almost entirely through these methods.

State farm deliveries to government procurement organizations are, of course, automatic. After the state farm satisfies internal needs (wages in kind to workers, feed for livestock, and so forth) the balance must go to the state. In 1958, state farms delivered almost 90 percent of their bread grain production. The government pays low prices to state farms, far below those paid to independent and collective producers, but these prices are meaningless by the nature of the relation between the state and state farms.

Payment of land tax in kind is made chiefly in bread grains; in 1958, 38 percent of total bread grain procurement was in this form. Land tax may be (but seldom is) paid in other commodities. The rates of this tax are set on the basis of the quality of the soil. The volume of products collected through land tax has been rather constant in recent years.

Payment-in-kind for services rendered by state-run enterprises also plays an important role in state procurement. Threshing fees of machine tractor stations and milling fees of state-run flour mills are generally paid in bread grains. Each year over 200,000 metric tons of bread grain or about one-fifth of total procurement, are collected in this manner.

TABLE 11.--Principal crops: Government procurement, selected years, 1950-58

Commodity	1950	1953	1956	1957	1958
	1000 m.t.	1000 m.t.	1000 m.t.	1000 m.t.	1000 m.t.
Bread grains:					
State farm deliveries.......	115	290	278	290	218
Compulsory deliveries.......	146	396	225	--	--
Land tax payment in kind....	418	343	304	310	314
Contract and other purchase.	294	9	145	205	77
Other procurements..........	267	305	231	254	214
Total....................	1,242	1,343	1,185	1,059	823
Feed grains:					
State farm deliveries.......	20	17	21	31	29
Compulsory deliveries.......	200	416	196	--	--
Land tax payment in kind....	28	62	24	7	18
Contract and other purchase.	63	10	33	190	187
Other procurements..........	34	41	18	54	51
Total....................	345	546	292	282	285
Potatoes:					
State farm deliveries.......	8	40	15	22	22
Compulsory deliveries.......	86	225	165	--	--
Land tax payment in kind....	--	--	--	--	--
Contract and other purchase.	177	50	201	315	295
Other procurements..........	--	--	--	--	--
Total....................	271	315	381	337	317
Sunflowerseed:					
State farm deliveries.......	5	4	1	1	1
Compulsory deliveries.......	46	146	88	--	--
Land tax payment in kind....	12	12	5	--	--
Contract and other purchase.	132	63	28	78	102
Other procurements..........	8	2	20	24	7
Total....................	203	286	142	103	110

Mezőgazdasági Statisztikai Zsebkönyv, 1959, pp. 337-345.
"Statisztikai Havi Közlemények", 12.Szam 1959, pp. 43,44.

Repayment of loans have been made in kind in recent years, but these deliveries have amounted to an insignificant part of total procurement.

The free market includes direct sales to consumers and interfarm sales. Only in these cases are prices not fixed. There is practically no free market for bread grains, cattle, and industrial crops. Besides pressure to sell to the state the peasant's access to the free market is usually limited by location. The free market is, however, of importance for vegetables, fruit, milk, eggs, and hog products.

The government endeavors to hold down free market prices by selling at low prices in state retail shops. Nevertheless, free market prices remain somewhat higher than those paid by the state.

TABLE 12.--Principal crops: Average fixed prices, selected years, 1949-58 1/

Commodity	1949	1951	1953	1956	1957	1958
	Forints per quintals 2/					
Wheat:						
Compulsory delivery..........	60.00	63.50	63.70	75.00	--	--
Contract, extracontract price.	84.20	77.60	160.70	276.60	213.00	212.30
Market retail prices.........	93.00	200.00	323.00	320.00	240.00	255.00
Rye:						
Compulsory delivery..........	54.00	57.70	55.90	69.00	--	--
Contract, extracontract price.	63.10	62.70	146.40	258.90	190.30	187.80
Market retail prices.........	90.00	150.00	283.00	290.00	215.00	230.00
Barley:						
Compulsory delivery..........	50.00	56.70	54.00	50.00	--	--
Contract, extracontract price.	67.40	77.10	71.70	220.00	250.20	245.10
Market retail prices.........	98.00	300.00	410.00	420.00	260.00	275.00
Oats:						
Compulsory delivery..........	(3/)	(3/)	(3/)	50.00	--	--
Contract, extracontract price.	(3/)	(3/)	(3/)	188.70	200.30	190.30
Market retail prices.........	(3/)	(3/)	(3/)	400.00	240.00	250.00
Corn:						
Compulsory delivery..........	50.00	56.00	50.30	49.00	--	--
Contract, extracontract price.	58.90	66.80	136.20	226.70	186.20	177.10
Market retail prices.........	90.00	200.00	340.00	370.00	240.00	245.00
Potatoes:						
Compulsory delivery..........	--	24.00	25.20	36.60	--	--
Contract, extracontract price.	20.90	48.00	52.40	141.70	107.50	102.00
Market retail prices.........	28.00	105.00	230.00	182.00	170.00	150.00
Sunflowerseed:						
Compulsory delivery..........	(3/)	(3/)	(3/)	82.00	--	--
Contract, extracontract price.	(3/)	(3/)	(3/)	240.00	280.00	282.30
Market retail prices.........	(3/)	(3/)	(3/)	340.00	--	--
Cattle for slaughter:						
Compulsory delivery..........	--	2.80	2.60	2.70	--	--
Contract, extracontract price.	3.20	3.40	2.90	8.10	9.00	10.51
Market retail prices.........	3.20	4.10	5.10	8.80	10.50	11.50
Fattened pigs:						
Compulsory delivery..........	5.40	6.30	5.20	5.40	--	--
Contract, extracontract price.	7.60	6.70	8.70	19.60	19.50	16.08
Market retail prices.........	7.60	31.30	25.10	20.50	18.00	16.00

1/ The sharp rise in market retail prices between 1949 and 1951 is evidence of the inflation in that period; despite the debasement of the currency, compulsory delivery and contract prices were kept at very low levels.

2/ The official rate of exchange of the forint is 11.7 per U.S. dollar; the tourist rate (which is more realistic) is 23.5 forints to the dollar.

3/ Not available.

Average prices paid by the government to producers rose considerably following the abolition of compulsory deliveries. For example, grain prices increased by about a third, according to government sources. This claim seems reasonable since the prices paid for compulsory deliveries averaged only about one-fourth the prices paid under contract sales. Contract prices have declined somewhat for most products in the past 2 years, but they are still far above the average price paid by the state when compulsory deliveries were in effect. Beef and sunflower contract prices have, however, been increased. Beef prices have been favored, owing to an imbalance in pork and beef supplies. The government has apparently felt it necessary to give added stimulus to sunflower production in order to maintain it in the absence of compulsory deliveries. In spite of these higher prices the sunflower area dropped by more than a third between 1956 and 1959. It still is not as profitable to produce sunflower as some other crops (especially corn) that can be grown on the same land.

Feed grains have been favored over food grains by prices both of grains and livestock products; this has led to an increase in feed grain and a decrease in food grain area.

In general, government-fixed prices have been stable as well as favorable compared to the postwar years preceding 1957. 7/ In early 1959 the regime announced that there would be no substantial change in prices paid for the 1959 crop. It appears that this has been true except for a 20-percent decrease in the wine price, which has been attributed to an overabundant supply.

Almost without exception there has been a decrease in free market retail prices since 1956. This is probably due primarily to larger quantities of most products available on the free market.

Taxation

In addition to securing revenue, the government uses its power to tax as a tool to force collectivization, secure state procurements, and control production. To these ends two main types of taxation are used: The land tax payment-in-kind and the general income tax.

The land tax in-kind is, as has been indicated, an important source for state procurement. Compulsory deliveries, as they existed prior to 1957, were also essentially a type of taxation-in-kind to the extent that they were collected at prices far below reasonable remuneration.

General income taxes are paid in cash. Collective farms pay according to "work units" accomplished during the year. Private peasants pay on the basis of the size of their farm and quality of the soil. Private farming is discouraged by the high tax rates imposed on individual peasants. These rates

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7/ This apparently advantageous situation has been marred somewhat by inflationary tendencies in the Hungarian economy. Prices paid by farmers have been increasing. Farmers' real income is nevertheless much greater than it was in the days of compulsory deliveries.

rise rapidly as farm size and soil quality increase. Peasants who cannot meet tax obligations often have only two alternatives: To join a collective farm or hand their land over to the state.

Furthermore, peasants who join cooperative groups (where taxes are still paid on an individual basis) get a 20-percent reduction. Recently formed collective farms get a reduction of 20 to 100 percent in the first year, depending on how far they have progressed in functioning on a collective basis.

Income taxes taken alone give only a small picture of government control over the peasant's net income, since the bulk of agricultural products is sold at prices fixed by the state. Fluctuations in tax rates can easily be offset by government manipulation of prices.

Other taxes imposed on private peasants (but not on collectives) are those on hired labor, horses and mules over 2 years old, and certain types of equipment.

Food Situation

The average Hungarian diet has improved quantitatively as well as qualitatively in recent years. Thanks to a modest increase in food production, a decrease in total net exports of food, and only a slow rate of population growth, per capita consumption (measured in calories) caught up with and surpassed prewar levels in the mid-1950's.

Also, more high-quality foods are consumed now than in prewar days. For example, per capita intake of sugar has more than doubled and there has been a moderate increase in the consumption of meat, fats, and eggs; this has more than offset the slight decline in consumption of dairy products. In 1957-58 fully 42 percent of the calories estimated as consumed came from foods other than the diet's mainstays, grain and potatoes, while during the 1933-34/1937-38 period this share was only 36 percent.

Both the rural and the urban population have participated in the improvement of the average diet. Judging by statistics and other published information, the farm population in particular has had better food. According to household budget surveys conducted by the Hungarian Central Statistical Bureau, city workers utilized from 40-60 percent of their income on food in 1957.

In spite of the progress that has been made in bettering the country's diet, there is still considerable room for qualitative improvement. Government officials recognize a need to increase consumption of meats, dairy products, fruits, and vegetables. (See food balances on following pages.)

Foreign Trade

The structure of Hungarian trade has changed markedly with regard to both trading partners and commodities in the postwar years. In 1938 only about 20 percent of total trade was with the countries that now form the Sino-

Population: 8,942,000

TABLE 13.--Estimated food balance, average 1933-34/1937-38
(excluding alcoholic beverages)

Product	Supply			Utilization								
				Nonfood uses				Supply for food				
										Net		
											Per capita	
	Produc-tion	Net trade	Total supply	Seed and waste	Feed	Indus-trial	Total	Total gross	Extr. rates	Total	Per year	Per day
	-1,000 metric tons-								Percent	1,000 m.t.	Kilograms	Calories
Wheat and rye.	2,933	- 585	2,348	460	40	2	502	1,846	75	1,385	154.9	1,530
Rice, milled		20	20					20		20	2.3	25
Other grain.	3,054	- 2	3,052	241	2,662	84	2,987	65	82	53	5.9	60
Total grain.	5,987	- 567	5,420	701	2,702	86	3,489	1,931		1,458	163.1	1,615
Sugar, refined	113	- 23	90							90	10.1	105
Potatoes	2,250	- 60	2,190	1/450	2/600	60	1,110			1,080	120.8	230
Dry legumes.	95	- 30	65	15			15			50	5.6	55
Other vegetables	500	- 45	455	100			100			355	39.7	25
Fruit (in terms of fresh) 3/ .	500	- 5	495	75			75			420	47.0	65
Meat (carcass wt.)	361	- 58	303							303	33.9	200
Fish (landed wt.).	7	--	7							7	.8	(4/)
Fats and oils (fat content). . .	161	- 31	130			8	8			122	13.6	340
Cheese	30	(5/)	30							30	3.4	30
Whole milk	1,700	(5/)	1,700		150	6/700	850			850	95.1	175
Eggs	60	- 10	50							50	5.6	20
Total consumption												2,860

1/ Seed only.
2/ Feed and waste.
3/ Excluding fruit for alcoholic beverages.
4/ Negligible.
5/ Less than 500 metric tons.
6/ Milk used in butter and cheese production.

TABLE 14.--Estimated food balance, 1957-58
(excluding alcoholic beverages)

Population: 9,825,000

Product	Supply				Utilization								
					Nonfood uses				Supply for food				
											Net		
												Per capita	
	Production	Net trade	Increase in stocks	Total supply	Seed and waste	Feed	Industrial	Total	Total gross	Extr. rates	Total	Per year	Per day
	1,000 metric tons									Percent	1,000 m.t.	Kilograms	Calories
Wheat and rye.	2,446	113	250	2,309	401	40	2	443	1,866	75	1,400	142.5	1,410
Rice, milled	51	- 29		22					22		22	2.2	20
Other grains	4,458	11	200	4,269	383	3,658	160	4,201	68	81	55	5.6	50
Total grain.	6,955	95	450	6,600	784	3,698	162	4,644	1,956		1,477	150.3	1,480
Sugar, refined	248	42	50	240							240	24.4	260
Potatoes	2,707	- 35		2,672	1/471	2/976	100	1,547			1,125	114.5	220
Dry legumes.	123	- 30	20	73	23			23			50	5.1	50
Other vegetables	800	- 50		750	160			160			590	60.1	35
Fruit (in terms of fresh) 3/ .	600	- 60		540	90			90			450	45.8	65
Meat (carcass wt.)	422	- 50		372							372	37.9	225
Fish (landed wt.).	5			5							5	.5	(4/)
Fats and oils (fat content). .	177	- 12		165			9	9			156	15.9	395
Cheese	30	- 4		26							26	2.6	20
Whole milk	1,800	(5/)		1,800		300	6/635	935			865	88.0	165
Eggs	85	- 8		77							77	7.8	30
Total consumption													2,945

1/ Seed only.
2/ Feed and waste.
3/ Excluding fruit for alcoholic beverages.
4/ Negligible.
5/ Less than 500 metric tons.
6/ Milk used in butter and cheese production.

Soviet Bloc; in 1958, the percentage was 70. Trade with the USSR, negligible before the war, accounted for 27 percent of total commerce in 1958.

Hungary is a net exporter of food products but to a lesser degree than was true prior to the war. In recent years farm products have accounted for about a third of total exports, except for 1958, when a poor harvest cut the figure to 18 percent. The major farm exports are meat and meat products, live cattle and hogs, eggs, butter, wheat, and sunflowerseed oil.

Imports of agricultural products have recently averaged about 15 percent of total imports. The chief agricultural imports are cotton, wool, wheat, sugar, and tobacco.

Hungary was Europe's second largest wheat exporter in 1934-38. However, during 1954-58 substantially more wheat was imported than exported, a consequence of the recent sharp decreases in bread grain area. Even lard exports, which were the largest of any European country in 1934-38, have been outweighed by imports in recent years.

Net imports of sugar have also recently become necessary, even though production has been maintained. This reflects the strong demand for sugar, per capita consumption of which is still relatively low.

The nation's balance of trade is almost always in surplus but the abnormal events of 1956, in which industry was virtually closed down for a few months, resulted in a large trade deficit in 1957 and consequently in foreign indebtedness that will have to be liquidated in the years to come.

Outlook

The impending 5-year plan (1961-65) envisages a 30-32 percent increase in agricultural output, using 1954-58 as a base period. To help reach this goal the government has pledged a considerable increase in agricultural investment and current input, mainly machinery and fertilizer. Tractor numbers are to be increased by 150 percent and fertilizer consumption is to be trebled. This boost in technology is to constitute a basis on which crop yields can be increased. The plan suggests that grain yields will be increased by 30-35 percent and other crops by an average of 25 percent. Hungary has very little unused land that is potentially productive, so increased production must come almost solely from higher yields. Average crop yields are far below those in most West European countries; there is room for improvement in this direction.

In the plan to expand livestock production, emphasis is again on yields, but an increase in livestock numbers is also envisioned.

Besides achieving a general increase in output, agriculture is to develop along more intensive lines. More emphasis is to be placed on livestock, fodder crops, fresh vegetables, sugar beets, and rice production.

In considering the plan's possibility of success, the selection of a 1954-58 base period is significant. The average agricultural output in 1954-58 is far from impressive. For example, net agricultural output in 1959-60 is estimated to exceed this average by about 10 percent. The 30-32 percent increase forecast for 1965 seems reasonable and realizable, provided that producers are given incentives and the planned government investment in agriculture is actually forthcoming. However, certain specific goals within the total, such as the predicted 50-percent increase in milk and egg production, will be much more difficult to attain.

Although the country's population is increasing by less than 1 percent per year, there is need for a generous increase in per capita food consumption, especially in those foods (as livestock products) whose production requires above the average use of primary resources. Most of the planned 30-percent increase in total agricultural output may well be needed for this purpose. Some of the increase will probably go into producing more of the products that must now be imported. However, the possibility that Hungary will be able to increase its exports (especially of livestock products) must not be overlooked. There is, and probably will continue to be, a sizable demand for Hungarian agricultural products within the Soviet Bloc (mainly in Czechoslovakia and East Germany). Whether Hungary might be able to regain some of the West European markets that it has lost since the war remains an open question.

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